

ADB Economics Working Paper Series



Monetary and Fiscal Operations in the People's Republic of China: An Alternative View of the Options Available

L. Randall Wray and Yolanda Fernandez Lommen

No. 380 | October 2013

Asian Development Bank



ADB Economics Working Paper Series

Monetary and Fiscal Operations in the People's Republic of China: An Alternative View of the Options Available

L. Randall Wray and Yolanda Fernandez Lommen

No. 380 October 2013

L. Randall Wray is Senior Scholar at the Levy Economics Institute, and Professor of Economics, University of Missouri – Kansas City. Yolanda Fernandez Lommen is Principal Economist, East Asia Department, Asian Development Bank.

The authors thank Asian Development Bank's Jesus Felipe, Advisor, Economics Research Department, and Niny Khor, Economist, East Asia Department, for their valuable comments. Professor Xinhua Liu from Shaanxi Normal University has provided excellent research assistance.

Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550 Metro Manila, Philippines www.adb.org

© 2013 by Asian Development Bank October 2013 ISSN 1655-5252 Publication Stock No. WPS136077

The views expressed in this paper are those of the author and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use.

By making any designation of or reference to a particular territory or geographic area, or by using the term "country" in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

Note: In this publication, "\$" refers to US dollars.

The ADB Economics Working Paper Series is a forum for stimulating discussion and eliciting feedback on ongoing and recently completed research and policy studies undertaken by the Asian Development Bank (ADB) staff, consultants, or resource persons. The series deals with key economic and development problems, particularly those facing the Asia and Pacific region; as well as conceptual, analytical, or methodological issues relating to project/program economic analysis, and statistical data and measurement. The series aims to enhance the knowledge on Asia's development and policy challenges; strengthen analytical rigor and quality of ADB's country partnership strategies, and its subregional and country operations; and improve the quality and availability of statistical data and development indicators for monitoring development effectiveness.

The ADB Economics Working Paper Series is a quick-disseminating, informal publication whose titles could subsequently be revised for publication as articles in professional journals or chapters in books. The series is maintained by the Economics and Research Department.

CONTENTS

ABSTRACT	V
I. INTRODUCTION	1
II. BACKGROUND AND CONTEXT FOR THE ANALYSIS	2
III. MAIN POLICY CHALLENGES	4
 A. Government Finances B. Corporate Debt C. Recent Financial Sector Developments D. Prospects for a Middle-Income Trap 	4 5 6 7
IV. BUDGET DEFICITS AND SECTORAL BALANCES: IMPLICATIONS FOR THE PRC	8
A. Sectoral Balances B. Implications for the PRC	9 10
V. POLICY OPTIONS	14
A. Fiscal PolicyB. Monetary PolicyC. Exchange Rate Policy and Capital Controls	14 15 17
VI. CONCLUSIONS	18
REFERENCES	20

ABSTRACT

This paper examines the fiscal and monetary policy options available to the People's Republic of China (PRC) as a sovereign currency-issuing nation operating in a dollar standard world. The paper first summarizes a number of issues facing the PRC, including the possibility of slower growth and a number of domestic imbalances. Then, it analyzes current monetary and fiscal policy formation and examines some policy recommendations that have been advanced to deal with current areas of concern. The paper outlines the sovereign currency approach and uses it to analyze those concerns. Against this background, it is recommended that the central government's fiscal stance should be gradually relaxed so that local government and corporate budgets can be tightened. By loosening the central government's budget but tightening local government and corporate budgets at a measured pace, the PRC can avoid depressing growth or sparking excessive inflation.

Keywords: fiscal and monetary policy options, sectoral balances approach, sovereign currency approach, middle-income trap, modern money theory

JEL classification: E60, E61, E62, O23

I. INTRODUCTION

This working paper addresses the fiscal and monetary policy options that are open to the People's Republic of China (PRC) as a sovereign currency-issuing nation. Today, the PRC operates with what many call a fiat currency, but in what could be called a "dollar standard" world in the sense that the vast majority of international transactions are denominated and often cleared in United States (US) dollars. This paper explores the policy space already available to the PRC as a sovereign currency-issuer concluding that the nation has the fiscal capacity to continue to pursue economic growth at a pace consistent with its development objectives.

The paper will argue that with its own fiat currency, the PRC's central government can afford to spend enough to pursue its desired development path. Against this background, we will emphasize that the PRC already has the policy space it needs to achieve its domestic policy agenda, which is similar to the space available to other monetarily sovereign nations, including Japan, the United Kingdom (UK), and the US²—even if that means that the budget shows a deficit.

It should be noted, however, that excessive government spending does raise the prospect of fueling inflation. As such, it is not the purpose of this paper to necessarily argue for greater government spending in the PRC. Rather, we will argue that, holding total spending across all sectors constant, it is desirable to shift spending between sectors—from sectors that have limited fiscal capacity to the sovereign central government that has more fiscal policy space. In other words, while total government spending might be at the right level, the distribution between central government and local government spending appears imbalanced.

For instance, the corporate sector and the local government sector are probably issuing too much debt relative to their income flows, while the central government is issuing too little. That might seem like a surprising conclusion but it follows from the understanding of the relations between the sovereign currency issuer and the users of that currency. Corporations, households, and local governments are users of the domestic currency (CNY), and if central government policy is too tight, economic growth requires that the balance sheets of the currency users become more precarious. This tendency will be compounded if the current account surplus is reduced, or if the central government tries to move toward a balanced budget.

For that reason, our main policy recommendation suggests that the central government's fiscal stance should be gradually relaxed so that local government and corporate budgets can be tightened. By loosening the central government's budget but tightening local government and corporate budgets at a measured pace, the PRC can avoid depressing growth or sparking excessive inflation.

The paper is organized as follows. Section II will present the background and context for the analysis based on the Modern Money Theory (MMT) framework, while Section III will focus on main policy challenges in the PRC, including government finances, increasing corporate debt, recent financial developments, and prospects for the middle-income trap, followed by an analysis of the sectoral balances approach by Wynne Godley and its implications for the PRC in Section IV. A range of policy options for monetary, fiscal and exchange rate policy are spelled out in Section V.

See, for example, McKinnon (2012).

For a detailed examination of the policy space available to sovereign currency issuing governments, see Wray (2012a). For applications of this approach to the PRC, see Wray (2012b, 2012c, and 2010b).

II. BACKGROUND AND CONTEXT FOR THE ANALYSIS

Since adopting a policy of gradually opening its economy more than 3 decades ago, the PRC has enjoyed rapid economic growth and rising living standards for much of its population. Success has been attributed in part due to its approach to exchange rate stabilization policy in the context of a dollar standard world. Given the willingness of the US to supply the international reserve currency, countries like the PRC have been able to find external markets for output while accumulating large international reserves to cushion unexpected shocks.

However, economic growth is currently slowing down and a return to double-digit growth appears unlikely.³ In this context, while some argue that the PRC might not avoid the middle-income trap, we will take the position that some commentators are underestimating the country's ability to continue to grow at a rapid pace, so long as the central government recognizes and uses the policy space available.

We will examine the issue with a view to providing policy recommendations that would allow the PRC to maintain robust growth in a sustainable manner. For that purpose, we will use a relatively new approach to economics—and especially to monetary and fiscal policy—the MMT, that is based on the recognition that policy options open to a nation that issues its own fiat or sovereign currency are much greater than the narrow policy space available to nations that do not. This new approach is based on the acknowledgement that sovereign currency makes a difference in terms of policy space and solvency, and leads to a much more open menu of policy options than is usually thought to be the case. This is because while the sovereign government cannot run out of its own currency, using or pegging to a "foreign" currency (one that the government cannot issue) constrains fiscal policy space because the government cannot spend beyond what it can obtain.

This also means that the exchange rate regime also matters, and the more flexible is the exchange rate, the greater is the potential policy space. Under a floating exchange rate, since the government lets the currency float it does not need foreign currency to hit an exchange rate target. It can—if it chooses to do so—use domestic fiscal and monetary policy to pursue other goals without necessarily worrying about accumulating foreign currency reserves. A country with a managed exchange rate does not commit to maintain a fixed exchange rate, so it can let the currency move if necessary. This gives it the option of operating domestic monetary and fiscal policy with independence, and then adjusting the exchange rate, if necessary, to mitigate unfavorable impacts on foreign currency reserves. The most constrained regime is one with a currency peg since domestic fiscal and monetary policy must take into consideration possible impacts on foreign currency reserves. A nation with large foreign reserves (like the PRC) can operate with a managed exchange rate or even an exchange rate peg without worrying excessively about currency flows. But if the nation starts to lose foreign currency, it will eventually need to adjust domestic monetary and fiscal policy to stem the flow. Alternatively, it can let the exchange rate adjust.

³ See Magnus (2013a, 2013b, and 2013c).

⁴ Economists have long used the term fiat currency to mean a currency issued by a government that does not promise to convert it to precious metal or foreign exchange at a fixed exchange rate. We prefer to use the term sovereign currency, emphasizing that this is a currency issued by sovereign government, denominated in the money of account chosen by the sovereign government, and accepted by that government in payments made to it. The government also chooses an exchange rate regime. The fixed exchange rate regime provides the least domestic policy space; managed and floating generally offers more. See Wray (2012a).

The global financial crisis and severe economic downturn in the west have initiated rethinking on these matters. Before the crisis, there was a widespread belief that monetary policy is the most important tool for economic stabilization, while the importance of fiscal policy was secondary. Nowhere was this more obvious than in the set-up of the European Monetary Union (EMU) where monetary policy power was consolidated in the European Central Bank, which was given nearly complete independence from the highly decentralized and relatively weak fiscal policy of the nation states. When the global financial crisis hit, some countries (notably, the PRC, the UK, and the US) turned to fiscal policy stimulus, but the EMU had no centralized fiscal authority to bolster spending. Two years into the crisis, the UK and the US began recoveries, but the EMU crisis actually deepened in 2010. Even today, several EMU members remain mired in recession.

After the onset of the crisis, policymakers in the west began to adopt an approach sometimes referred to as "fiscal consolidation" or "growth through austerity". This approach was applied most forcefully on the periphery of the EMU, but also to a lesser extent in the UK and the US, after recovery began. The basic argument was that reducing budget deficits would allow the private sector to grow more robustly and thereby lift economic growth. Two important empirical research programs provided apparently rigorous justification for this approach—the first claimed to show that high government debt-to-gross domestic product (GDP) ratios generate financial crises, while the second maintains that due to crowding out the government spending multiplier is much smaller than conventionally supposed (and, indeed, could be negative).5

However, both of these claims have been challenged. The finding that there is a government debt ratio threshold (purported to be at 90%), beyond which growth slows and solvency is thrown into question was shown to rely on flawed empirical work. And more recent estimates by International Monetary Fund (IMF) economists of the spending multiplier have shown that it is actually significant. In both cases, then, it appears that fiscal stimulus actually does work and that even fairly high government debt ratios do not generate substantially slower economic growth. A consensus is emerging that fiscal policy is important, and that budget deficits do not necessarily burden an economy with either financial crisis or crowding out. usually believed to affect investment.

A recent empirical paper carefully investigates the claim that a large government, especially one that provides a generous social safety net, leads to poor economic performance due to inefficiencies. The authors note that most developed Western nations have cut social spending on the argument that government spending is less productive than private spending, and that taxes reduce spending in the more efficient private sector. Hence, downsizing government was supposed to increase efficiency and generate greater growth. The authors examine the cases of 15 European countries that followed this advice and find no evidence for the claim that reducing the size of government enhances economic performance.

Reinhart and Rogoff, and Alesina are the main proponents of each of these arguments. See Wray (2010a) for an early critique, and Wray (2011) for an argument that the Rogoff-Reinhart results are not relevant to the US case; and Herndon, Ash, and Pollin (2013) for evidence that the Reinhart and Rogoff results depended on mistakes made in data analysis. See Blanchard and Leigh (2013) for the argument that "fiscal consolidation" (tighter government budgets) have had larger than expected negative effects—providing empirical evidence in support of a government spending multiplier.

See Auci, Castellucci, and Coromaldi (2013).

These results are entirely in line with what the sovereign currency or MMT approach has been arguing. In other words, with a sovereign currency, the government faces no affordability problems. That issue is particularly important for the PRC as the nation moves forward. We will argue that a prudent course would actually be to relax central government fiscal policy. Indeed, for reasons we will make clear, that is a necessary move in order to improve finances of local governments as well as corporations. We do appreciate concern with inflation. Our point, however, is that the PRC's central government spending is very small in comparison with both developed and upper-middle income developing nations. Indeed, if aggregate demand is currently at the correct level, it is possible to relax central government budgets while at the same time tightening local government and corporate balances so as to hold total aggregate spending constant. This would enhance financial stability without giving up price stability. If desired, other measures can also be pursued—tighter monetary policy, direct credit controls, restrictions on speculation, among others. The point is that shifting more fiscal responsibility to the central government does not eliminate the possibility of using other means to fight inflation should that be necessary.

III. MAIN POLICY CHALLENGES

This section will focus on main policy challenges in the PRC, including government finances, increasing corporate debt, recent financial developments, and prospects for the middle-income trap.

A. Government Finances

At 23% of GDP, the PRC's government debt ratio remains well below ratios that are common in the West. Further, its budget deficits are small, typically between 1%–2% of GDP. It is also interesting to note that if excluding central government funding of local government spending through transfers and tax rebates, the central government's budget surplus would be large and growing. Together, all of these would seem to indicate substantial policy space for expansion of central government spending if necessary.

The central government has announced plans to increase spending by about 50% in 2013 targeting a fiscal deficit of CNY1.2 trillion (\$193 billion) amounting to about 2% of GDP. As such, local governments will run a combined deficit of CNY350 billion to be covered by bonds issued by the Ministry of Finance (MOF), improving local government budgets. All of this seems to indicate that the central government recognized it has the fiscal policy space to expand spending in order to keep the economy growing at about 7%.

This must be interpreted in the context of the announcements by the PRC's leadership emphasizing quality over quantity in its growth, a marked deviation from the previous fast growth-focused strategy. The shift has prompted local governments to lower growth targets. Obviously, there needs to be consistency between local government growth targets and central government targets. Trying to grow faster at the local level could mean running up debt at a faster pace than average, as spending multipliers could cause income to leak out of a fast-growing regions—this is a sort of Thirlwall's Law applied to regions within a country, in which by definition, exchange rates are pegged since all use the same currency.

The offered justifications for running tight policy include, in addition to inflation, possible exchange rate effects (high growth can raise imports relative to exports), crowding out of investment (unlikely to be a problem in the PRC as investment is high), increased risk of

sovereign insolvency (actually not possible for a sovereign currency issuer as we explained), or to preserve policy space for the future when it might really be needed. Indeed, after the global financial crisis hit, many economists argued that a country like the US (which had a fairly small government debt ratio) was better situated than a country like Italy (which already had a high debt ratio) to use fiscal stimulus. In our view, preserving policy space for the future might apply to a country that does not issue a sovereign currency (i.e., members of the EMU), but it cannot apply to a sovereign-issuer like the US or the PRC.

The PRC's fiscal policy space is adequate and can be preserved by gradually relaxing control of the exchange rate. At the same time, we argue that it would not be recommended to shift the policy mix away from fiscal policy and toward a more market-based monetary policy. While we do recognize the substantial central government's contingent liabilities stemming from unprofitable state-owned enterprises, we believe that the best way to handle them is to make them more explicit. And the same could be applied to the stock of local government debt, which is kept largely off-budget but it is reaching concerning levels. While it remains manageable as percentage of GDP (26.7% in 2010) local debt is high as a share of local income (exceeding 100%). More worryingly, debt service over revenue stands at an average 30%.

Ironically, the fiscal stimulus adopted in the aftermath of the global financial crisis substantially increased problems for local governments. Traditionally, local governments had limited access to credit markets. The MOF has been issuing bonds on behalf of local governments since 2009 but in a limited amount. The urge to comply with the central government's request that local governments finance CNY3 trillion out of the CNY4 trillion earmarked in the stimulus package launched in 2009 prompted those to acquire the bulk of their debt load through special investment vehicles (SIVs) that were kept off-budget. As a result, rather than relieving pressures on local governments, the fiscal stimulus increased local government debt.

The question would then be whether the PRC's national government is able to absorb these liabilities, perhaps significantly increasing its government debt ratio, without calling into question government solvency.

While the central government's budget has relaxed somewhat in recent years, and the government has indicated they might be willing to increase budget deficits at about 2% of GDP, the fiscal stance remains tight in comparison with that of Western nations. In our view, the PRC should move toward greater reliance on central government spending to keep growth on target. To be sure, on-budget fiscal stimulus is only a part of the impetus to growth. In addition, there is implicit off-budget stimulus in the form of state-encouraged lending and local government (deficit) spending. The corporate and household sectors also have provided stimulus through debt-financed spending. But these other forms of stimulus are potentially more troubling because they can enhance financial fragility. Instead, the PRC should increase on-budget spending, both direct spending as well as transfers to local government.

В. **Corporate Debt**

While national government deficits and debt have been relatively small, the PRC's corporate debt as a percentage of GDP is high (151%) compared to that of other Asian nations—and much higher than the ratio in the US (75%). However, the PRC and some Asian nations have had very high investment ratios, which could be expected to lead to higher corporate debt ratios, all else equal. Some observers claim, however, that much corporate borrowing is being undertaken simply to rollover debt.

High rates of corporate borrowing allow the economy to operate with a very high investment ratio, and to grow rapidly. The transformation over the past 3 decades could rightly be called unprecedented. While mainstream economics typically presumes diminishing returns, the PRC is an example of an economy that achieved constant to increasing returns through massive public and private capital investment. Further, the country simultaneously built the entire complement of industries as well as making social investments in infrastructure and education.

If the PRC does enter a phase of slower growth, it becomes more difficult to continue to service debt undertaken on the expectation that growth would remain high. If, indeed, firms are already facing some financing problems with total corporate debt service close to 30% of GDP, slower growth would make matters worse. As we will discuss in the next section, by relaxing the central government's budget, growth could be maintained on a more sustainable basis because the sovereign government can afford to spend beyond its revenue stream.

However, large corporate debt burdens are easier to manage when growth is high, so lower trend growth could increase financial stress in the corporate sector. Relaxing the central government's budget is one way to help boost private sector finances. This is also consistent with the sectoral balances approach discussed in the next section. Modest inflation also reduces debt burden, although Western experience shows that excessive inflation comes at a political cost. Hence, a slow transition to less reliance on corporate debt to finance economic growth would reduce dangers of financial fragility.

Financial fragility will be compounded by reports suggesting that rolling over loans has become widespread as lending extended under the massive stimulus package during the financial crisis to support economic growth gradually came due but could not be paid back on time. Bankers appear to support the practice of rolling over mature loans so long as interest can be paid, as this ensures projects have good cash flow, and expect the principal will eventually be repaid following a grace period. This practice implies that banks are doing this instead of classifying the loans as non-performing assets suggesting their current low level (0.9%) could be misleading.

In the classification scheme developed by Hyman Minsky, this would be called speculative finance, where income flows can only service interest rates. He warned that a speculative position can become a Ponzi scheme if income flows fall or if interest rates rise—where interest has to be capitalized (borrow just to pay interest). This is the danger an indebted corporate sector faces when growth rates fall (or interest rates rise). Just how the PRC might be able to transition to slower growth is certainly complicated by heavy corporate debt. For that reason, the transition to slower growth needs to be carefully managed. One way is to have central government spending lead growth in a manner that strengthens corporate portfolios, effectively by replacing corporate debt with central government debt.

C. Recent Financial Sector Developments

There has been a substantial amount of discussion of the PRC's banking system, which is feared to be saddled with too many potential nonperforming loans. However, it is more likely that the real danger resides in the rapidly growing shadow banking sector, which poses a threat to banks, firms, and households. In effect, there are concerns about inadequate consumer protection due to excessive risk and lack of transparency. Further, both corporate treasuries and commercial banks are lending to shadow banks, putting their own balance sheets at risk.

Finally, just as they did in the West, shadow banks compete with commercial banks reducing their profits and possibly encouraging them to take on riskier activities to compete.

Shadow banking in the PRC assumes various guises. The most basic are the illegal loan dealers who operate mainly in wealthy coastal regions, providing high-interest loans to small businesses that are often ignored by mainstream banks. But most of the PRC's shadow banking, albeit not very transparent, is legal. The biggest of the nonbank institutions are trusts, companies akin to hedge funds. They cater to rich investors and promise high returns by lending to risky customers, especially property developers. A range of industrial companies, from shipbuilders to oil majors, also engage in shadow banking as a side business. Estimates about the size of shadow banking vary widely depending on how it is defined. But it is estimated that wealth management products (WMPs) alone account for about \$2 trillion. For all the difficulties of making a calculation, one thing is apparent, its rapid growth in merely 2 years.

In addition to rapid growth and lack of transparency, there are two other concerns in this connection. First, the rise of WMPs and shadow banking generally means that it has become harder for the national government to discourage lending in overheated sectors. While bank lending can be slowed, shadow banks (often lending at higher rates) come in to fill the credit gap created. Second, just as the US discovered over the past 3 decades, traditional mainline and relatively safe banking business cannot compete for funding with shadow banks willing to pay much higher rates to savers. The banks will feel pressure to make riskier loans in order to be able to afford higher funding costs. In the US, this situation led banking regulators to loosen rules to level the playing field, so that the activities of banks became very similar to those of the shadow banks, an element that played an important role in creating the conditions that led to the global financial crisis.

D. **Prospects for a Middle-Income Trap**

Many developing nations get "trapped" as middle-income countries, unable to join the world's rich nations. The PRC joined the upper-middle income group in 2009, after having spent only 17 years in the lower-middle income group. In our view, the PRC is actually in a good position and will almost inevitably escape the middle-income trap. The PRC's GDP per capita has tripled since the late 1980s and is expected to double by 2020. Even if growth is slower than it has been, it seems inevitable that by the simple math of compound growth that the PRC will avoid the trap.7

However, as the government recognizes, growth by itself is not an adequate goal. Inclusive growth that reduces inequality is better but still not sufficient. As indicated by the PRC's leadership, policy needs focus on quality over quantity, which implies articulating a myriad of policy actions ranging from strengthening safety nets to environmental sustainability. This means that moving forward policy needs to place greater weight on structural transformation while letting economic growth be a by-product of that transformation.

Jesus Felipe argues that it is not likely that the PRC will grow as fast as it has in the past, rather, it will eventually slow to a rate of perhaps 5% per year.8 That is still sufficiently fast to push the nation beyond the trap (since population growth is slow). Further, he argues that

For more details see ADB (2012, 2011).

Felipe (2012a, 2012b) argues it will be difficult to maintain the PRC growth rates as high as they have been in the past. In Felipe (2013), it is argued that a plausible scenario is that the PRC engages in a controlled deceleration such that growth over the next 2 decades averages about 5%.

growth targets, alone, are not even desirable. The PRC is already beginning to worry about environmental sustainability, a topic beyond the scope of this paper. And high growth could be fueling inequality, which is probably not socially sustainable, or at least it is not socially desirable.

In a series of pieces, George Magnus⁹ has looked at limits to growth facing the PRC. He follows Paul Krugman in arguing that the Asian "miracle" was not a miracle but rather can be attributed to organizational and institutional efforts to deploy labor and capital more efficiently.¹⁰ But the PRC is now slowing because the country has: (i) exhausted the demographic dividend; (ii) largely completed migration of labor from low productivity agricultural use to higher productivity urban production; (iii) raised educational standards; (iv) reached the maximum saving and investment ratios that are probably unsustainable; and (v) substantially opened its economy.

He also argues that there are dangerous imbalances, such as too much private credit, especially to the use of finance investment, reliance on relatively inefficient state-owned enterprises (SOEs), high-income inequality, and suppressed factor prices. In conclusion, he recommends reducing the role of the government and increasing the role of markets to support growth in the longer term. He predicts that the PRC's growth will slow to 4%–5% bringing down growth of the rest of developing Asia, adding to the impact caused by the global financial crisis in the West.

Felipe is less pessimistic and argues that rather than shifting emphasis from government to free markets, the best strategy is for government to work to organize key private players, to encourage cooperation and joint projects. He concludes that the PRC is actually in a good position to continue with its development strategy, but with less focus on growth as the important policy goal:

"The PRC is implementing policies to achieve a "harmonious society." Chinese policymakers have realized that solving problems such as unemployment and underemployment, a deteriorating environment, or increasing inequalities, will determine how well the country does in the next decades. Perhaps policymakers should think less in terms of a growth target and more in terms of employment creation (and unemployment/underemployment reduction) and structural transformation targets. Growth will be a by-product. Development is a path-dependent process and the PRC has acquired tremendous knowledge and competency that will allow it to continue thriving in the next decade." (Felipe 2013)

To sum up, it is likely that the PRC's growth will slow, but the nation will continue on its path to join the developed high-income group.

IV. BUDGET DEFICITS AND SECTORAL BALANCES: IMPLICATIONS FOR THE PRC

In this section, we discuss first the interrelations among sectoral balances, following the work of Wynne Godley, ¹¹ and, second, its implications for the PRC.

⁹ See note 3

¹⁰ See also Felipe (2013) and Felipe (2012a and 2012b).

¹¹ See Wray (2012d).

Α. Sectoral Balances

The essence of the approach could be summarized as follows: the sum of the deficits run by one or more sectors must equal the surpluses run by the other sector(s). We can state this principle in the form of a simple identity:

Domestic Private Balance + Domestic Government Balance + Foreign Balance = 0

Using conventional definitions, the aggregate identity looks like this:

$$(S-I) + (T-G) + (M-X) = 0$$

(S = saving, I = investment, T = taxes, G = government, M = imports, X = exports).

We can rearrange the equation as:

$$(S - I) = (G - T) + (X - M)$$

(S – I) is the net saving of the private sector—that is households plus firms.

(G - T) is simply the general government's balance, including national and provincial or state and local governments. When the government is running a deficit (G>T), this term is positive.

(X - M) is the current account balance. When the current account is in surplus, this term is positive.

It is apparent that if one sector is going to run a budget surplus, at least one other sector must run a budget deficit as the three balances must be equal to zero. A sector can spend more than its income, but that means another spends less. Establishing causation requires theory, informed by logic and data.

The normal assumption is that while at the micro level income largely determines household spending, at the macro level for the private sector as a whole it is spending that largely determines income, at least over the shorter run. While this derives largely from Keynesian theory, it is also grounded in empirical research as well as logic: we can decide to spend more (through borrowing) but we cannot decide to have more income. In any case, it is important to understand that to the degree that we believe the private sector has discretion in choosing its budgetary outcome, then to that degree we accept that the government sector does not have discretion over its budgetary outcome (holding the foreign balance constant).

The government's balance depends on policy but also on tax revenues that in turn depends on economic performance and the structure of the tax system. While we can take government spending as more-or-less discretionary, government tax revenue (government's equivalent to its income) depends largely on economic performance. In practice, tax revenue growth is highly variable, moving pro-cyclically (growing rapidly in boom and collapsing in slump), which makes the ex-post budget balance also variable, with deficits increasing in a slump and falling during robust economic growth. Sovereign government can always decide to spend more (although it is politically constrained), and it can always decide to raise tax rates (again, given political constraints), but it cannot decide what its tax revenue will be because they apply a tax rate to variables like income, sales, and wealth that are outside government control.

And that means the budgetary outcome—whether surplus, balanced, or deficit—is not really discretionary.

Turning to the foreign sector, exports are largely outside control of a nation (they are exogenous or autonomous to domestic income). They depend on various factors, including growth in the rest of the world, exchange rates, trade policy, and relative prices and wages (efforts to increase exports will likely lead to responses abroad, so it is not necessarily effective to push down domestic wages or to tax imports). It is true that domestic economic outcomes can influence exports, but impacts of policy on exports are loose. On the other hand, imports depend largely on domestic income (plus exchange rates, relative wages and prices, and trade policy). Hence, if domestic policy tries to reduce imports this would almost certainly lead to responses by trading partners that are pursuing trade-led growth. Imports are largely procyclical, too. Again, the current account outcome—whether deficit, surplus, or balanced—is also largely nondiscretionary.

Finally, the domestic private sector balance is composed of the balances of firms and households. Causality is admittedly complex; firms largely determine the level of production and employment, thus, income. However, households have discretion over their spending out of income (plus the decision to finance spending through borrowing). At the aggregate level, spending largely determines income. We normally expect that the private sector wants to run a surplus (save), which adds to its accumulation of assets, but also depresses aggregate income (creating a demand gap). Given a balanced foreign account, a private sector surplus means that the government will run a deficit. As the private sector saves, it accumulates claims on the government (including cash, reserves, and bonds), representing a net accumulation of financial assets. Again, if we believe the private sector has some discretion to run surpluses, then we believe that the government sector does not have complete discretion over its own budgetary outcome.

Ultimately, what is discretionary? Domestic spending by households, firms, and government is largely discretionary. Sectoral balances, however, should be taken as mostly nondiscretionary because they depend in very complex ways on the discretionary variables plus the nondiscretionary variables, and on the constraints imposed by the macro identity. For that reason, it makes most sense to promote spending that will utilize domestic resources close to capacity, and then let sectoral balances fall where they may. In other words, we can use policy to promote spending at the right—full employment—level but we should not try to predetermine the balances across sectors. If the domestic private sector wants to spend less than its income (save) in excess of the foreign sector's desire to spend more than its income (meaning the foreign sector runs a current account deficit that is too small to offset domestic saving), then the government sector must run a deficit. We would expect that if the government tried to balance its budget in these conditions (reducing government spending or increasing tax rates), then the private sector would try to reduce spending even further below its income, creating a larger demand gap. Exactly how the balances would turn out is indeterminate, but the problem would be insufficient aggregate demand and thus unemployment.

B. Implications for the PRC

Starting with the PRC's three sector balances, Figure 1 shows the domestic private, the government, and the foreign balances from 1990–2012. We see that the government budget deficit (nearly 2% of GDP in 2011) plus the export balance (also about 2% in 2012) equals the private sector balance of about 4% in 2011 (saving exceeds investment by about 4% of GDP, so investment minus saving is a negative 4%).

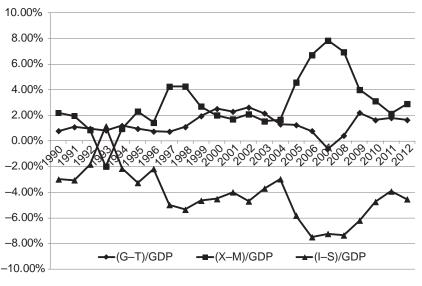


Figure 1: Sectoral Balances in the PRC 1990–2012 (%)

G = government spending, GDP = gross domestic product, I = investment, M = imports, PRC = People's Republic of China, S = saving, T = taxes, X = exports.

Sources: China Statistical Yearbook, PRC Custom Statistics, National Bureau of Statistics

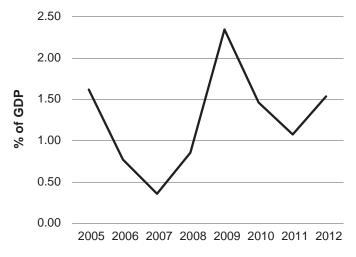
Since the start of the global financial crisis, the net export balance has declined considerably. All else equal, this would have led to a large decline of the domestic private sector's positive balance. However, the budget deficit rose early in the crisis, stabilized, and then increased again in 2012, partly offsetting the decline of net exports so that the adjustment to the private sector's surplus was smaller than it would have been. Note that if the PRC's net exports trend lower, then the only way to maintain a constant private sector surplus is to have the government sector's deficit grow.

Figure 2 shows how since the global financial crisis, the trend has been for the central government budget deficit as a ratio to GDP to rise. The picture is different, however, if we exclude central government support of local government spending as shown in Figure 3, where central government spending on its own programs is small relative to its revenues. In other words, its surplus relative to GDP is growing rapidly since 2000. This is because its own revenue has been fast growing while its spending has not. Further, while the flow of tax revenue has increasingly shifted from local government to the national government, responsibility for social programs has actually been shifted to local government, where revenue often does not match expenditure obligations.

Putting aside central government support of local governments, we find that the situation is much different at the local level as local revenue falls far short of spending. As shown in Figure 4, this is almost a mirror image to the central government's finances, as local governments run growing budget deficits—which are made up by transfers from the central government.12

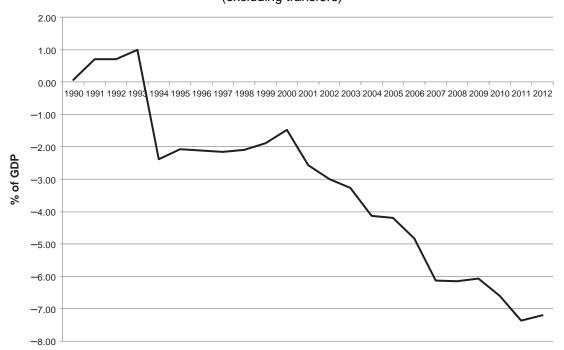
There is skepticism about the data on local government finances. Some estimates put the local government debt ratio at higher levels. See Feng (2009) and Sun (2013).

Figure 2: The PRC's Central Government Deficit (% of GDP)



GDP = gross domestic product, PRC = People's Republic of China. Source: Ministry of Finance of the PRC

Figure 3: The PRCs Central Government Deficit (% of GDP) (excluding transfers)



Source: China Statistical Yearbook

10.00 9.00 8.00 7.00 6.00 % of GDP 5.00 4.00 3.00 2.00 1.00 0.00 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012

Figure 4: Local Governments Budget Deficit (% of GDP) (excludes transfers from the central government)

GDP = gross domestic product Source: China Statistical Yearbook

We note that reported data on local government debt appears low. Until recently, local governments had very restricted ability to issue debt. The reported data understate local government liabilities because debt was issued off-balance sheet through SIVs because local governments were not allowed to borrow.

Notwithstanding these questions about the reported data from the sovereign currency perspective, the policy stances of local governments and of the central government appear to be the reverse of prudent policy. In a sovereign nation, it is better to run tight fiscal policy at the local level and looser policy at the national level. The sovereign government faces no solvency risk. As the currency issuer, it can make all payments as they come due. By contrast, local governments can and sometimes do default on obligations because they cannot generate enough revenue to service debt.

Further, local government might engage in risky practices to finesse or hide deficits and debts. Much as financial institutions created SIVs to make their balance sheets look better, a local government might move debts off its balance sheet. Local governments that are revenueconstrained might also engage in short-run policies to obtain financing that are not sound in the long-run. For example, selling land to developers to finance local government activities might not be in the long-run interest of the community.

Summing local government and central government deficits gives us the government balance reported in the sectoral balances on Figure 4. The growth of local government deficits was halted only very recently as the central government's deficit rose. We see this as a welcome development, since the sovereign currency issuer has the fiscal capacity to service debt.

V. POLICY OPTIONS

A. Fiscal Policy

As discussed in the previous section, we suggest that the distribution of the fiscal burden between local government and central government is imbalanced. Central government fiscal policy is tight, while local governments probably need to tighten. We do not know if the reported data for local governments are accurate. It is possible that debt has been moved off balance sheets, or unreported. There could be contingent liabilities that are not included. But even if the data are accurate, we believe that the difference between central and local government finance is worrying. The burden on local government appears to be too high. Not only are local governments responsible for social spending (that many of them probably cannot afford) but they are also engaged in what could be called competitive development—trying to increase infrastructure to attract capital development and good jobs. With sometimes severely constrained revenue sources, they sell land to developers to raise the funds needed for infrastructure. In some cases, the result is environmental degradation, which imposes a disproportionate share of the costs on the poor who actually consume few of the natural resources and who receive little of the benefits of public spending.

A far better strategy would be to move more of the responsibility for social spending and even local public infrastructure spending to the central government. This would allow for more equal shares to be distributed across regions, or even for progressive distribution of central government provisioning (higher per capita spending for poorer communities). As the sovereign currency issuer, the central government does not face an affordability constraint. It does need to worry about spending too much—which can be inflationary, might pressure the exchange rate, and would likely generate bottlenecks that deprive firms of resources they need.

But it is recommended to put more of the spending at the central level precisely because that is the level at which policymakers should be on-guard against inflation. Local government is much less likely to decide to reduce spending or raise taxes just because inflationary pressures are growing. There are "common pool" problems associated with demand-driven inflation. If local governments are engaged in competitive development, it is not in the interest of any single one to slow its local economy just because inflation is picking up at the national level. It is at the national level that government can act to control inflation by restricting spending or raising taxes (or raising interest rates and imposing credit rationing).

We thus recommend reform of the tax system, increasing the share of the central government's budget devoted to social spending, and reducing the fiscal burden imposed on local government. Moving toward a more progressive tax structure reduces the burden on poor communities and individuals. Progressive income taxes also make tax revenues pro-cyclical (rising in a boom and falling in a slump) which acts as an automatic stabilizer. While that is a problem for local governments (revenues fall when social needs rise), it is not a problem for the sovereign government, which can run budget deficits as necessary to stabilize income. There is no reason to match central government tax receipts with expenditures at any point in the cycle. What is necessary, instead, is for the budget stance to move against the cycle (tightening when the economy is in danger of overheating and loosening when growth slows). The danger faced by excessive sovereign government budget deficits is inflation, not insolvency.

¹³ See ADB (2010).

Returning to the three balances approach detailed in previous section, there is no unique government budget outcome consistent with noninflationary growth at the desired level as it depends on the other two balances—which in turn are determined complexly. If the PRC runs a current account surplus of 2% of GDP, then a budget deficit of 2% allows the domestic nongovernment sector to run a surplus of 4%. Currently, that has occurred at a growth rate above 7%, but there is nothing inevitable about that. If the domestic nongovernment sector decided to spend more of its income (save less)-for example run a surplus of only 1% of GDP—then it is possible that a budget deficit of 2% would be too great (inflationary) and so balance would be restored with some combination of a higher domestic nongovernment surplus. a lower budget deficit, or a lower current account surplus. On the other hand, if the domestic nongovernment sector retrenches and tries to save, for instance, 10% of GDP, then the economy slows and the balances adjust (ex-post domestic nongovernment sector surplus falls below 10%, the budget deficit rises, or the current account surplus rises).

To conclude, we highlight that it would not be advisable to pursue arbitrarily chosen deficit or debt targets for the central government. If anything, fiscal policy reform should put more emphasis on central government spending, and reduce responsibilities of local governments, or provide more funding for them from the central government. Local governments need to adopt tighter budgets, either by shifting more responsibilities to the central government or by creating additional regular sources of funding flowing from the central government to local governments. Both tax policy and spending should become more progressive, to increase provision of public services and public infrastructure to poor communities while relieving tax burdens there. Social spending (30%) of the central government probably needs to be doubled relative to revenue, to bring the PRC in line with other middleincome countries (55%).

Central government has the policy space to achieve these reforms. It is the sovereign currency issuer, so affordability is not the problem. Rather, increased spending must be phased in at a pace such that it does not fuel inflation.

В. **Monetary Policy**

Over the past 3 decades, Western central banks have moved from money or reserve targets to explicit interest rate targets (often overnight interbank lending rate). In many nations some type of a Taylor Rule is followed such that the interest rate target is adjusted with a view to controlling inflation (a few nations adopt explicit inflation targets). However, central banks also include other goals such as low unemployment, reasonable economic growth, exchange rate stability, and financial stability. However, it is well recognized that it is difficult to hit a variety of targets with just one instrument. Both the US Federal Reserve and the Bank of Japan have supplemented interest rate targets with quantitative easing. Further, central banks generally play some role in regulating and supervising financial institutions.

In the PRC, the People's Bank of China (PBOC, the central bank) also uses a range of policy instruments, as previously discussed. The PRC operates with managed exchange rate and capital controls—these help to maintain domestic financial stability. The PBOC issues bills to help manage reserves; it engages in open market operations in both its own bills and in treasury debt. It also uses the discount window, and pays interest on excess reserves. It controls bank lending and deposit rates. It has substantial, albeit largely implicit, control over banks. Finally, it has a dual mandate of stabilizing the currency and maintaining robust growth; it has an acknowledged but implicit mandate to maintain financial stability.

In comparison to Western central banks, the PBOC probably has greater influence on its commercial banks and thus on formal credit markets. However, there is a growing shadow banking sector that is more difficult to control. It is probable that control of the formal sector actually increases the incentive to move activity to the shadow bank sector. Indeed, it appears that commercial banks are heavily involved in shadow banking. It has been argued that the PBOC keeps deposit interest rates in the commercial banks low to allow zombie banks¹⁴ to carry nonperforming loans. This financial repression probably contributes to growth of shadow banking where interest rates are considerably higher.

Various proposals for policy change include ending financial repression, moving to inflation targets, dealing with zombie banks, freeing exchange rates and capital flows, increasing regulation and supervision of shadow banks, and internationalizing the currency. In addition, possible implications for monetary policy should be considered if the main fiscal policy recommendation discussed earlier—relaxing the central government's budget—were followed.

An argument for allowing interest rates to rise is that this will encourage more saving and hence promote investment. Yet the PRC already has very high investment rates. Further, as discussed, the domestic private sector surplus is equal to the balances of the government and foreign sectors. If the central government relaxes fiscal policy, the budget deficits will increase the private sector surplus (holding the foreign balance constant). While it makes sense at a micro level to argue that encouraging saving by households would generate more loanable funds for investment, at the macro level sectoral balances dictate a different relationship. It is not a coincidence that Asian economies typically have high saving rates—not only do they have high investment (hence, the saving leakages equal the investment injections) but they also have current account surpluses (allowing domestic saving to exceed investment so that the private sector has a surplus). If they also have a government budget deficit then the private sector's surplus (saving less investment) is equal to the sum of the current account surplus and the government deficit.

Further, low policy interest rates keep spending on interest low—benefiting debtors such as SOEs, small business, and local and national government. While the sovereign central government can always afford to pay higher interest, devoting a larger share of the budget to interest payment is probably not a good idea as interest income is likely skewed to higher income brackets. Instead, it is preferable to target central government spending to social programs, as discussed above. There is a well-known "sustainability" relation between interest rates and growth rates. If interest rates are below growth rates, then the debt-to-income ratio will not rise uncontrollably so long as the primary deficit (this is the budgetary balance excluding interest payments) is controlled. More generally, higher interest rates would tend to increase the share of national income flowing to higher income households, exacerbating inequality.

However, low official interest rates encourage shadow banking where earnings can be higher. Hence, to make the official rates effective, the central bank will need to increase control over the shadow bank sector. This is not easy. In the West, the reaction to competition from the less regulated sector was to reduce regulations across the financial system—leveling down. This, arguably, contributed to the evolution of the financial system toward fragility that finally resulted in the global financial crisis. The potential benefits from leveling up in the PRC appear to be significant even if the process will be complex. It is particularly difficult to regulate local, informal, credit markets—but that is probably not essential. It would be easier to reduce

¹⁴ A zombie bank is a financial institution that has an economic net worth less than zero but continues to operate because its ability to repay its debts is shored up by implicit or explicit government credit support.

participation by commercial banks and large nonfinancial enterprises in the shadow banking sector, and that is the more important avenue to exerting control over total credit activity.

If the PRC's central government fiscal stance relaxes as recommended, more national government debt will be issued. In that case, the central bank will issue fewer bills as treasury debt will be sufficient to drain a larger portion of undesired excess reserves. From the sovereign currency perspective, there is no significant difference between central bank bills and treasury bills or bonds. In both cases, these offer a higher interest alternative to the low rate paid on reserves. With respect to insolvency or default risk, there is no difference between treasury and central bank debt—there is no chance of involuntary default on either of them. Operationally, they also serve the same purpose, which really can be thought of as an instrument to achieve monetary policy, not as a "borrowing" operation. Sale of bills and bonds drains reserves that otherwise might place downward pressure on the overnight interest rate. Hence, the central bank would simply move from its own bills to treasury debt to supply or drain reserves.

While it became fashionable over the past decade for central banks to target inflation rates, orthodox consensus is moving away from them. The idea was that interest rate setting would follow a Taylor Rule, lowering rates if inflation fell below targets or raising rates if inflation rose above the desired inflation level. However, since the global financial crisis it has become more apparent that interest rate adjustments are not up to the task. Indeed, even with zero interest rate policy that pushes the target interest rate to zero—the feasible minimum—central banks have not been able to prevent inflation from falling below the desired rate, like it is the case in Japan where there has been deflation for years. The PRC has been pursuing a much more pragmatic policy, which relies on many tools including fiscal policy, narrowly defined or traditional monetary policy, and as well as less conventional persuasion to get commercial banks to cooperate in order to keep growth at the desired level (taking inflation into account). Further, the PRC has tolerated more inflation than developed Western nations are ready to permit. This pragmatic flexibility has served the country well.

Finally, many have argued that the PRC should deal with its zombie banks that hold nonperforming loans, pointing to the Japanese experience. It is said that Japan's long-lingering problems are due to its failure to take swift action to resolve troubled banks. While that could be true, our view is that the PRC situation is guite different. The PRC continues to grow rapidly, which might allow debtors to eventually repay, and moderate inflation reduces debt burdens because loans are written in nominal terms. By contrast, Japanese banks are stuck with debtors who are burdened with slow economic growth and deflation, which increases debt burdens. Further, the biggest problem with a zombie bank is that if net worth is zero (or negative) there is a big incentive to "bet the bank" (take on huge risks) in order to restore capital so that bank equity holders can recover wealth. In the PRC's case, many of the debtors are SOEs, and the banks are also state-owned. The central government can afford to take losses, but it also can afford to keep the SOEs operating (even at a loss) if that serves some public purpose (keeping workers employed, for example). In other words, government does not have to take a narrow profit-oriented view. So long as government supervises the zombie banks to ensure they do not engage in highly risky behavior, there is no necessary reason why they must be shut down.

C. **Exchange Rate Policy and Capital Controls**

There should be no hurry to relax control over exchange rates or capital flows in the PRC. Today, the global financial system remains fragile, dominated by speculative flows. Another major financial crisis remains possible. While the West is discussing reigning-in financial excesses, it has not yet put in place the reforms that would attenuate excessively risky behavior.

Managing exchange rates and capital flows helps protect the economy from externally-induced financial instability. Eventually, the PRC will want to move toward greater flexibility of its exchange rate in order to maintain domestic policy space. As discussed, tight control of the exchange rate can be maintained only in the presence of sufficient foreign currency reserves. However, with a current account surplus as well as managed capital flows, the PRC has ample policy space even with managed exchange rates. As the current account balance moves toward deficit and as capital controls are relaxed, greater flexibility of the exchange rate will be needed.

The currency is already increasingly used in international trade—for example, in invoicing. The PRC should probably continue to increase international use of its currency. However, for the near future, the currency will remain relatively unimportant compared to the US dollar and a handful of other currencies that are used as international reserve currencies. As most international dollar flows have to do with portfolios rather than trade, with a current account surplus and with managed capital flows, the yuan is not well-situated to become a major international reserve currency. There is little doubt that that will eventually change, but it should be done at a measured pace. The PRC has a large stock of international currency reserves and still runs a current account surplus, implying sufficient supply to manage the exchange rate and to finance imports using foreign currency reserves. There is little need for international currency reserves at the central bank beyond those two uses. In other words, the PRC can use its stock of international currency reserves as it gradually moves toward internationalization of the currency.

In this connection, despite growing calls to accelerate the opening of the capital account, we believe that at present, the PRC is not in a position to fully liberalize its capital markets nor to float its currency. Given its large dollar reserves, the country will be able to successfully manage its exchange rate for domestic policy purposes. Opening capital markets excessively would expose the PRC financial markets to the same sort of developments that created crises in most of the West after 2008. Capital controls will help insulate the economy from potential crisis as some parts of the global economy have not recovered from the past crisis, and others are actually slipping back into recession. Further, the managed exchange rate regime in the current environment helps reduce uncertainty. For all these reasons, we recommend that the PRC continue to move toward greater openness gradually.

VI. CONCLUSIONS

This paper presents an analysis of a number of policy issues now facing the PRC, based on a sovereign currency framework. We analyzed the monetary and fiscal options available to the PRC using its sovereign currency. We used the framework to explain how the country might be able to continue to grow and develop in the context of a dollar standard world.

Current government plans for further economic reform contemplate in-depth fiscal reform. The sovereign currency approach is particularly suitable to investigate issues surrounding fiscal reform and to make policy recommendations. In discussing fiscal reform it is important to recognize the options available to a nation that adopts a sovereign currency.

¹⁵ See Akram (2013).

Our main conclusions are the following: (i) the PRC's fiscal and monetary policy space is similar to those of other monetarily sovereign nations such as Japan, the UK, and the US, therefore affordability is not an issue as the government can always make all budgeted payments as they come due; (ii) these results do not depend on internationalization of the sovereign currency nor do they require that liberalizing capital flows; and (iii) the country's main imbalance is domestic and consists of local government budgets that are too loose while the central government's budget is too tight.

Following from those conclusions, we recommend that the central government's fiscal stance should be gradually relaxed so that local government and corporate budgets can be tightened. By loosening the central government's budget but tightening local government and corporate budgets at a measured pace, the PRC can avoid depressing growth or sparking excessive inflation.

REFERENCES

- Asian Development Bank (ADB). 2010. Rebalancing Growth in the PRC: The Role of Fiscal Policy. *Observations and Suggestions* No. 2010-4. Manila, Philippines: Asian Development Bank.
- ——. 2011. The Challenges of Middle Income Transition in the PRC. *Observations and Suggestions* No. 2011-2. Manila, Philippines: Asian Development Bank.
- ——. 2012. Growing Beyond the Low-Cost Advantage: How the People's Republic of China Can Avoid the Middle Income Trap. Manila, Philippines: Asian Development Bank.
- Akram, T. 2013. Macroeconomic Outlook and Monetary Policy View: No Exit from the Wasteland? ING Global Macro View from Atlanta, GA. *ING Investment Management Report*. Atlanta, GA.
- Auci, S., L. Castellucci, and M. Coromaldi. 2013. Does Cutting Back the Public Sector Improve Efficiency? Some Evidence from 15 European Countries, Vol. 11. *CEIS Working Paper* No. 274. Rome, Italy; Center of Economic and International Studies (CEIS).
- Blanchard, O., and D. Leigh. 2013. Growth Forecast Errors and Fiscal Multipliers. *IMF Working Paper* No. 13/1. Washington, DC: International Monetary Fund.
- Felipe, J. 2012a. Tracking the Middle-Income Trap: What is It, Who is in It, and Why? Part 1. *ADB Economics Working Paper Series* No. 306. Manila, Philippines.
- ——. 2012b. Tracking the Middle-Income Trap: What is It, Who is in It, and Why? Part 2. *ADB Economics Working Paper Series* No. 307. Manila, Philippines.
- ——. 2013. Why Has [the People's Republic of] China Succeeded—And Why It Will Continue to Do So. *Cambridge Journal of Economics*, Vol. 37. pp. 791–818. Cambridge, UK.
- Feng, S. 2009. Study on Local Government SIVs and Local Government Debt. *China State Finance*, Vol. 18. pp 43–45. Beijing, PRC.
- Magnus, G. 2013a. Hitting a BRIC Wall. The Globalist. Available at http://www.theglobalist.com
- ——. 2013b. [The People's Republic of] China and the End of Extrapolation. *The Globalist*. Available at http://www.theglobalist.com
- ———. 2013c. Is Asia's Miracle Over? *The Globalist*. Available at http://www.theglobalist.com
- Herndon, T., M. Ash, and R. Pollin. 2013. Does High Public Debt Consistently Stifle Economic Growth? A Critique of Reinhart and Rogoff. *Political Economy Research Institute Working Paper* No. 322. Massachusetts: Political Economy Research Institute, University of Massachusetts.
- McKinnon, R. 2012. *The Unloved Dollar Standard: From Bretton Woods to the Rise of* [the People's Republic of] *China*. Oxford University Press, US.

- J. Sun. 2013. Chinese Local Government Debt, Current Situation, Problems and Strategy. Friends of Accounting, Vol. 3. pp. 58-66. Beijing, PRC.
- Wray, L. R. 2010a. Does Excessive Sovereign Debt Really Hurt Growth? A Critique of This Time is Different by Reinhart and Rogoff (with Y. Nersisyan). Levy Economics Institute Working Paper No. 603. New York: Bard College.
- -. 2010b. Excessive Liquidity and Bank Lending in [the People's Republic of] China: A Modern Money Perspective (with Xinhua Liu). International Journal of Political Economy. Volume 39, Number 3. New York: M. E. Sharpe.
- 2011. Is the US on an Unsustainable Path? Lessons from the Past as Detailed by Reinhart and Rogoff (with Y. Nersisyan). In O. Torsten Niechoj, Engelbert Stockhammer, Achim Truger, and Till van Treeck, eds. Stabilizing an Unequal Economy? Public Debt, Financial Regulation, and Income Distribution. Marburg, Germany: Metropolis.
- 2012a. Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems. New York: Palgrave-Macmillan.
- —. 2012b. Lessons for [the People's Republic of] China from the Crisis in Euroland (with X. Liu). The Chinese Economy, Vol. 45. pp. 6-25. New York: M. E. Sharp.
- —. 2012c. The Nature of Money: From the View of Post-Keynesian Economics (with Jinxing Guo). China Review of Political Economy, No.1. Beijing: International Center for Social Science, Renmin University.
- -. 2012d. Godley Got it Right. In D. Papadimitriou and G. Zezza, eds. Contributions to Stock-Flow Modeling: Essays in Honor of Wynne Godley. New York: Palgrave Macmillan.

Monetary and Fiscal Operations in the People's Republic of China: An Alternative View of the Options Available

This paper examines the fiscal and monetary policy options available to the People's Republic of China (PRC) as a sovereign currency-issuing nation operating in a dollar standard world. The paper first summarizes a number of issues facing the PRC, including the possibility of slower growth and a number of domestic imbalances. Then, it analyzes current monetary and fiscal policy formation and examines some policy recommendations that have been advanced to deal with current areas of concern.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than \$2 a day, with 828 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550 Metro Manila, Philippines www.adb.org/economics